



FINAL Minutes
WATER RESOURCES ADVISORY COMMISSION
Monthly Meeting

February 05, 2015, 9:00 AM
 District Headquarters - B-1 Auditorium
 3301 Gun Club Road
 West Palm Beach, FL 33406

Attendee Name	Title	Status	Arrived
Douglas Yoder	Alternate for Bill Johnson	Present	
Samantha Whitcraft	Alternate for John Lamkin	Absent	
D. Albrey Arrington	Utility	Present	
Jeff Ward	Alternate for Barbara Miedema	Absent	
Shelley Vana	Local Government	Present	
Douglas Bournique	Agriculture	Present	
Bob Ulevich	Alternate for Doug Bournique	Present	
Chuck Collins	FWC / Statewide	Absent	
Harry Cronin	Alternate for Jim Reynolds	Absent	
Jeff Scott	NRCS / Federal	Absent	
Vincent Encomio	Alternate for Mark Perry	Absent	
Jim Reynolds	Utility	Present	
Kurt Harclerode	Alternate for Pam Keyes	Absent	
Michael Harford	Local Government	Absent	
Mark Perry	Environmental	Absent	
James Humble	Agriculture	Present	
Kristin Jacobs	Local Government	Absent	
George L Jones	Public Interest	Present	
William "Chad" Kennedy	FDEP	Present	
John T. Lamkin	NOAA / Federa	Absent	
Joan Lawrence	US DOI / Federal	Present	
Barbara Miedema	Agriculture	Present	
Linda McCarthy	Alternate for Bubba Wade	Absent	
Kimberly Lawrence	Alternate for Michael Harford	Present	
Newton Cook	Public Interest	Present	
Don Fox	Alternate for Chuck Collins	Absent	
Mary Ann Martin	Public Interest	Present	

Bevin Beaudet	Alternate for Shelley Vana	Absent	
Brian L. Wheeler	Utility	Absent	
James J. Moran	Chairman	Present	
Joe Capra	Business	Present	
Bud Howard	Alternate for Albrey Arrington	Absent	
Michael Collins	Public Interest	Present	
Mark Dombroski	Alternate for Newton Cook	Absent	
Medora Krome	Alternate for James Humble	Absent	
James Erskine	Miccosukee Tribe	Present	
John Lesman	Business	Present	
Ashley Tripp	Alternate for Mary Ann Martin	Absent	
Maelo Reyes	Alternate for Jeff Schmidt	Absent	
Rich Budell	Alternate for W. Ray Scott	Absent	
Wovoka Tommie	Seminole Tribe	Absent	
Malcolm "Bubba" Wade	Agriculture	Present	
Jacqui Thurlow-Lippisch	Alternate for Joe Capra	Absent	
Thomas Greco	USACE	Present	
Neale Montgomery	Business	Absent	
Harry Raucher	Utility	Present	
Pat Martin	Alternate for Harry Raucher	Absent	
Joshua Kellam	Business	Present	
Cherise Maples	Alternate for Wovoka Tommie	Absent	
Lance R. Bennett	Business	Absent	
Erin Deady	Environmental	Present	
Adam Gelber	Public Interest	Present	
Tom Greco		Present	
Jason Liechty	Alternate for Kristin Jacobs	Present	
Tom Jones	Agriculture	Present	
Mike Sweeney	Alternate for Brian Wheeler	Absent	
Pam Keyes	Utility	Absent	
Jenny Conner Nelms	Environmental	Absent	
Nancy Payton	Environmental	Absent	
W. Scott Ray	FDACS / Statewide	Present	
Karson Turner	Local Government	Present	
Jamie Poulos	Alternate for Lance Bennett	Absent	
Bill Johnson	Utility	Absent	
Shannon Estenoz	US DOI / Federal	Absent	
Kevin Powers	Vice-Chairman	Present	
Tabitha Cale	Environmental	Present	
Jill Hoog	Public Interest	Absent	

2. Call to Order - James J. Moran, WRAC Chairman

Mr. Moran called the meeting to order at 9:02 am, welcomed Vice Chair Kevin Powers, and introduced fellow Governing Board Member Melanie Peterson. Mr. Moran welcomed new WRAC member Tabitha Cale.

3. WRAC Member Issues

Mr. Moran stated that in follow-up to a conversation WRAC had last month about possibly forming a technical subcommittee relative to the flooding in South Dade, the District's Governing Board came to the conclusion that staff will work diligently with the stakeholders in that region to come up with some interim solutions while long term solutions are being worked through the coordinating agencies. Staff will update WRAC with their progress going forward.

Newton Cook, United Waterfowlers, spoke about the need to exercise the option to purchase 26,000 acres of land South of Lake Okeechobee (Lake). Mr. Cook said that this land is important to long term Everglades restoration no matter if it is converted into a stormwater treatment area, a reservoir, flow equalization basin or water conservation area.

Mike Collins, Florida Keys Fishing Guides Association/Florida Bay Initiative, stated that he sat through the Technical Oversight Committee (TOC) meeting held on February 4, 2015 which is a scientific group put in place to advise the principals of the Settlement Agreement. Mr. Collins said that the TOC rarely offers the principals any advice on possible changes and after twenty years they have not noticed one single thing that has changed in the Everglades that might result in amendments or modifications to the Settlement Agreement which he finds stunning. Mr. Collins continued that with all of the projects that have been built, the scientific data that has been gathered and locating anomalies within the system there has yet to be a single recommendation made to the principals that they reconsider any of the statutory guidelines that exist within the Settlement Agreement.

James Erskine, Miccosukee Tribe of Indians, pointed out that he was unable to make last month's meeting, but the webcast is very important along with the videos that are posted for members who are occasionally unable to attend. Mr. Erskine stated that he also attended the TOC meeting and some of the water quality issues that were discussed were especially concerning including moving water through the system as it relates to some of the flooding discussed at last month's WRAC meeting concerning South Dade. Mr. Erskine was glad to have L-31N seepage barriers as a topic on the agenda as the Tribe feels the project plays a key role.

Kimberly Lawrence, Osceola County – Alternate for Michael Harford, thanked staff for extending the comment period for the Kissimmee River Water Reservation rule as the county would like to review the technical documentation more closely in order to provide the best possible comments.

Erin Deady, Erin L. Deady, P.A., appreciated that Sea Level Rise was on the agenda as several members have requested the item.

Ray Scott, Florida Department of Agriculture and Consumer Services (FDACS), asked for clarification regarding the Board's decision not to approve the formation of a technical subcommittee to look into flooding in South Miami-Dade. Len Lindahl

responded that Board direction was not to form a technical subcommittee that would report to WRAC, but to have the Executive Director and the leadership team would directly engage with South Dade land owners to look at options and what can be done to alleviate flooding in the area which would occur on a regular basis. Mr. Lindahl informed WRAC members that the team has already conducted a meeting with a group of landowners and technical representatives from the area with a subsequent meeting scheduled following the February 12th Governing Board meeting. Mr. Lindahl said that currently everyone is looking forward to moving ahead with Increment 1 as discussions are ongoing. Mr. Lindahl reiterated that the leadership team would provide regular updates to the WRAC.

Jill Hoog, Keyes Realty, stated that problems with water levels in Deer Run were still being worked on. Ms. Hoog said ponds are going dry and information is being gathered for submission to the District. Ms. Hoog commented that there has been some relief given to the residents, but there is still a way to go and she is working with a District engineer to investigate an anomaly that occurred between the L-8 project and residents of Deer Run. Ms. Hoog wanted to clarify that a technical subcommittee on South Dade flooding was not being formed. Mr. Lindahl restated the Governing Board's direction to have the executive leadership team directly engage with local landowners and technical experts to find some solutions to the issue.

Joan Lawrence, Department of Interior (DOI), said that the second workshop on the Integrated Delivery Schedule (IDS), held on February 2nd was well-attended. Ms. Lawrence announced the next meeting will be held on March 9th in the District's B-1 Auditorium and videos, sequencing presentations, slides and other meeting documentation from the February 2nd meeting could be found on the Task Force website.

Joe Capra, CAPTEC Engineering, Inc., said that WRAC members learn about many components of many plans at meetings and asked that staff provide an interactive map within each presentation that shows members where projects are relative to their respective plans. Mr. Capra stated that this would be helpful as it would orient members to which projects belong to specific programs or plans and help members start to look at corresponding schedules and know which projects need to be moved on at the appropriate time. Mr. Capra told members that his WRAC alternate, Jacqui Thurlow-Lippisch has released the second edition workbook of the River Kids which contains lots of educational material related to the St. Lucie River. Mr. Capra said the book was prepared by eleventh graders for second graders which is pretty impressive.

Mary Ann Martin, Roland Martin Marina, informed members that businesses around the Lake are booming; Torry Island is packed, there are no available RV campsites in Okeechobee City, Moore Haven is very busy and people are fishing everywhere. Ms. Martin said that the Lake really has an impact on the local economy through tourism which has recently attracted many international visitors from South Africa, China and other nations. Ms. Martin continued that fishing tournaments slots have been completely filled and local fisherwoman Breezy McMillan of Belle Glade took second place in last weekend's tournament. Ms. Martin commented that she is glad that even though the rains are coming in, Lake levels are going down and the Lake is in good condition.

Karson Turner, Hendry County Commissioner, commended the District on some of its creative methods used in pre-bid openings which are helping find ways to get projects done. Commissioner Turner announced that on February 24, 2015 he would be joining the 16 County Coalition for Responsible Management of Lake Okeechobee on its Lobby Day in Washington DC to advocate for funding and progression of Everglades Restoration including Kissimmee River Restoration, C-43, C-44 along with other top priorities that the Coalition has identified over the past three years. The Commissioner disagreed with Mr. Cook's assessment that the option to purchase 26,000 acres of US Sugar land should be exercised. Commissioner Turner said that he wanted to see the water storage occurring and projects delivered in light of the good plans and projects that have already been identified and put in place. The Commissioner stated when looking at the available tax base in Hendry and Glades counties taking into consideration the amount of conservation lands in the region, taking land out of production puts people out of business, and although he would not like to see high-rise condos and excessive "rural sprawl" he must work to protect and improve the tax base in the region. The Commissioner continued that over the past six years Hendry County has led in quarterly statewide unemployment rates every time except once and the business community is looking at all angles including education programs and testing performance from prekindergarten through twelfth grade to find ways to improve this number. Commissioner Turner concluded that buying more land would only exacerbate the problem.

Lieutenant Colonel Tom Greco, United States Army Corps of Engineers (Corps), announced that the Corps released the Environmental Assessment for the G-3373/S356 field test for public review on February 4, 2015 which is the first increment of what will result in the combined operational plan for Modified Water Deliveries and the C-111 South Dade system and is hopeful that stakeholders will review and provide comments. LTC Greco stated that over the last month the Corps jointly put forth a few planning efforts including the Loxahatchee River Watershed Restoration project for which the Project Delivery Team (PDT), subteams, and public meetings have been held. The Colonel said that since last month the Corps has awarded the MacArthur Ditch backfill contract for Kissimmee River Restoration. LTC Greco announced that the President released his budget this week which includes approximately \$124M for Everglades Restoration including key funding for projects such as the C-111 Contract 8 and engineering and design on recently authorized projects. The Colonel continued that the budget also contains about \$65M for Herbert Hoover Dike which reflects the award of funding for the last culvert on the Southern portion of the Lake which is significant because the date, based on the existing schedule, coincides with keeping access to the HHD open for contractors and the public.

Doug Yoder, Miami-Dade Water and Sewer - Alternate for Bill Johnson, announced that Bill Johnson, current utilities director has been appointed as Director of Enterprise Florida and Secretary of Commerce by the Governor. The Mayor has appointed Lester Sola as the new Miami-Dade Water and Sewer Director.

Chad Kennedy, Florida Department of Environmental Protection (FDEP), announced a reorganization in Tallahassee including the appointment of new FDEP Secretary Jon Steverson; Craig Varn, Special Counsel on Water Policy And Legal Affairs; Lauren Engel, Communications Director and Paula Cobb, Regulatory Programs. Mr. Kennedy

informed members of a letter sent by Governor Scott to Congress informing them of his \$5B state budget proposal which features several key environmental restoration initiatives.

James Humble, Miami-Dade Agricultural Practices Advisory Board, appreciated the visit that executive staff paid to Miami-Dade agricultural stakeholders last month and expressed his hope that the same level of focus would remain on the area. Mr. Humble stated that it bothers him that people on Congressional Committees have not heard of these issues in light of the tremendous amount of information that comes out of the area. Mr. Humble held that a rosy picture is being painted about the area and the real issues are not being properly conveyed. Mr. Humble continued that a real disservice to the people of South Dade is occurring because DOI and Corps staff are not delivering information up the appropriate chain of command and Audubon staff is saying that no real damage is occurring. Mr. Humble said water that has been reported as directed to Everglades National Park (Park) is often not accepted by the Park and diverted to the people of South Dade. Mr. Humble stated that agriculture in South Dade is unique to the nation and he thought that forming a technical subcommittee to investigate solutions to the problem was a good idea and hopes that conversations between District executives and South Dade stakeholders are not limited to a small group. Mr. Humble said that Congress did not create the Donnie Kassel bill to destroy South Dade agriculture; the purpose was to restore parts of the Everglades.

Barbara Miedema, Sugar Cane Growers Cooperative, weighed in to support Mr. Humble by stating one of the ways to gather broad-based support and develop consensus is to have a WRAC subcommittee, workshop or technical group to encourage a publicly open discussion of the issues rather than holding the discussion between three people who are senior managers in the District. Ms. Miedema stated that she took offense, as a member of WRAC, having come to consensus with other members to form the committee and then have the committee not be approved by the Governing Board. She stated that although she is glad that a small group has brought attention to the matter she hopes that focus remains on coming to a resolution and reports back regularly with information and their progress.

Kevin Powers, WRAC Vice Chairman, addressed several member concerns regarding the Board's decision to forgo forming a WRAC technical subcommittee and deciding on a small focused group of executive managers. Mr. Powers said that he believes that utilizing executive staff is a faster, more efficient way to address the issue because bringing a large group of stakeholders slows down the process and time is of the essence. Mr. Powers encouraged members to speak to him directly if they had any more concerns with the Board's decision, but reiterated the commitment of the Board and executive staff to work quickly to identify both interim and long-term solutions and report on their progress regularly. Mr. Powers concluded that a technical subcommittee will be reconsidered in the future, if necessary.

Mike Collins agreed with Mr. Powers' by stating that the short-term response has been appropriate, but solutions need to be more long term. Mr. Collins continued that had Mr. Powers been at the last WRAC meeting a very different discussion would have taken place. Mr. Collins stated his belief that people have been engaged; however the bottom line is that some of these issues have been lingering for twenty years and some

of the solutions that have been suggested over the last thirty years have been opposed or rejected by a variety of interests centering around a philosophy within Everglades National Park (Park), and if staff could get passed that, there would be a great deal of support. Mr. Collins said that there is a concern out there that these issues have remained the same for many years and it is not solely a farmer's issue, but also a Florida Bay issue because water is supposed to be going into and staying the Park and since it is not the reasons for that need to be confronted. Mr. Collins concluded he wants water going into the Park and Florida Bay not going into farmer's fields.

Tabitha Cale, Audubon Florida, complimented the PDT process as it allowed multiple agencies and many stakeholders to participate in coming up with the different alternatives for the incremental testing in South Dade. Ms. Cale said one of the issues that Audubon has made public comment on at WRAC and other public meetings is the desire to avoid any operational changes that would reduce ecological benefits associated with these projects. Ms. Cale stated that when doing comparisons between alternatives, the two alternatives that include operation changes at S-197 show that there would be negative impacts to northeast Florida Bay, Barnes Sound and Manatee Bay. Ms. Cale continued that Audubon would not like to see incremental testing slowed down, but moved forward because it is important to get more water into Shark River Slough and to get more understanding of how the system is working and how water is moving through it so an operations plan can be developed for South Dade that can come close to satisfying all of the varied interests in the region. Ms. Cale stated that one of Audubon's biggest concerns is that if S-197 is opened it would draw water away from Taylor Slough and prevent some of the water that is getting into northeast Florida Bay through early spreader canal operations. Ms. Cale said that WRAC has heard from multiple entities that this is a Florida Bay issue as well as a Park issue and Florida Bay has been close to receiving a MFL violation and if there is a reduction in fresh water delivery to the Bay salinity level problems will ensue.

Public Comment

Bob Ulevich, Indian River Citrus League – Alternate for Doug Bournique, complimented the Upper East Coast Water Supply Team for conducting a model demonstration on water supply and aquifers. Mr. Ulevich continued that the Water Farming pilot project at Caulkins is approaching its one-year anniversary and the Inspector General has issued a report. Mr. Ulevich remarked that is important to that WRAC review the report to get a full understanding of the progress of the program. Mr. Ulevich concluded that he was glad to see Sea Level Rise as an agenda item and appreciated that Doug Yoder, who has championed the issue, was present.

4. Impact of Sea Level Rise on District Operations - Jeff Kivett, P.E., Director, Operations, Engineering and Construction Division, SFWMD

WRAC Member Comment

Newton Cook commented that it is known that we live in a post-glacial world, that there is warming, and that the sea has been rising for nearly 15,000 years reported by some from 300ft and by others at about 700ft but the real numbers must be reviewed apart

from the propaganda. Mr. Cook noted that the UN Intergovernmental Panel on Climate Change (IPCC) for the past ten years or more has said that the oceans are rising at a rate of 3mm per year and that has been the standard number for a long time which has been used in all of the models. Mr. Cook said a couple of months ago it was decided that the subtle science was wrong because the 600ft plus measuring devices located in certain areas had been sinking and all of the work on continental plate change had not been completed so the figure was revised. Mr. Cook stated that the new National Oceanic and Atmospheric Administration (NOAA)/IPCC number is 1.3mm per year for the last one hundred years and as Mr. Kivett noted, has accelerated back to 3mm over the last two to three years. Mr. Cook continued that over the last one hundred years 130mm, 25mL round numbers to the inch, so five or six inches in the last one hundred years is the rate the seas have been rising according to the IPCC. Mr. Cook said that the idea that seas levels would go from rising at the rate of 1.3mm to 3mm per year to a level that is twenty three times that figure over the next ten to twenty years to reach the 2ft to 4ft projections is not rational. Mr. Cook said that the seas would have to rise twenty three times more next year than it did last year and if that does not happen, then it would have to rise thirty times more the following year to track along with projections. Mr. Cook acknowledged that sea level rise does exist, but the rate of increase should not have triggered the alarmist numbers without some really drastic changes in the world. Mr. Cook stated the Arctic Circle was supposed to have disappeared by now as stated by Al Gore in 1997, but last year it grew faster than it has in years and as fast as the Arctic shrinks, Antarctica grows. Mr. Cook concluded that these are examples of natural forces working and for stakeholders to go out and spend billions of dollars based on the idea that suddenly the seas are going to rise twenty three times faster in the next few years beyond what has been reported by the IPCC is irrational.

Jason Liechty, Broward County, said that Broward County has a panel of local scientists from the University of Miami (UM), NOAA, and other agencies, that make up the Southeast Florida Regional Climate Compact, take the IPCC figures into consideration along with their own considerable technological expertise and come up with an extensive local/regional estimate for sea level rise. Mr. Liechty said he places his faith in their estimates as this is their life's work, subject to peer review, which has been adopted by four counties from Palm Beach to Monroe through their county commissions to be used for planning purposes along with many municipalities. Mr. Liechty said that he understands Mr. Cook's concerns about the data; however, personally, professionally and as a representative for Broward County his faith lies with this technical group and Broward's plans and estimates will continue to be based on their expertise. Mr. Liechty commended Mr. Kivett's presentation which brought to light many of the issues associated with sea level rise and the website with the animations, noting that other areas of the world face different issues related to climate change, but in South Florida, many of the most serious concerns will revolve around water. Mr. Liechty concluded that Broward County is excited about the C-51 Reservoir project it is actively pursuing with Palm Beach County and utilities which will offer a multitude of benefits including flood protection and water supply.

Joan Lawrence announced that at last month's meeting of the Biscayne Bay Regional Restoration Coordination Team (BBRRCT), a team under the South Florida Ecosystem Restoration Task Force Working Group, received presentations on climate change from

technical experts including Dr. John Englander and Dr. Harold Wanless, climate change expert, from UM. The presentations are posted on the Task Force website under the BBRRCT for those who may be interested.

Mayor Shelley Vana stated that as a policy maker, it is her responsibility to act on behalf of the public in a manner that represents their best interest. Mayor Vana stated that Palm Beach County is working with the Compact and trying to work through how to respond to the best-available science with cost-efficient planning and construction keeping citizen's safety at the forefront of the focus. The Mayor discussed the difficulty of the situation and the uncertainty of evolving science, but expressed appreciation for District staff participation with the Compact and stated that South Florida policy makers are using the best available science and avoiding the alarmist rhetoric that sometimes accompanies discussions on climate change.

James Erskine said that sea level is not yet a primary concern in the region in which his work takes place; however, in the central Everglades, the climate change side of the conversation is a big driver. Mr. Erskine stated in a recent agency meeting held with the Tribe, the U.S. Geological Survey (USGS) provided an update on some modeling that was done which is being put into a peer-reviewed format that features some of the climate change scenarios such as a scenario representing a 10% decrease in average annual rainfall showed Lake Okeechobee (Lake) reaching a stage of five feet which has never been foreseen, so a small change in rainfall can result in a very large changes within the water management system. Mr. Erskine asked when prioritization was taking place in terms of the structures depicted in the presentation, were internal structures within the Central and Southern Flood Control System (C&FS) system, that will play an important role in climate change and Everglades restoration, considered as an increase or decrease in rainfall will cause additional stress on the maximum and minimum capacity of the C&FS system. Mr. Erskine also asked whether a connection on those internal drivers have been made in relation to coastal drivers and considered in the first recommended steps of climate change. Mr. Kivett explained that the first steps being taken includes a review of the entire basin including all internal structures, coastal structures, constructed impoundments; however, the District is starting small in an effort to learn new and better ways to do things as the exercise progresses. Mr. Kivett stated that the goal was to start on a smaller scale considering just a few structures in order to devise a tried, true and repeatable method to completing the task. Mr. Kivett said the ultimate goal is to look at the entire system, not just a coastal structure or an individual gate, but how everything works together from both a sea level rise and a climate change prospective. Mr. Erskine followed up by asking for a time line on the ultimate goal. Mr. Kivett said that the intent was to move through the exercise pretty quickly with the first review to be completed in about six months and as the team becomes more efficient in the work, structures and facilities will be packaged for an even timelier review, so the entire exercise has about a two to three year timeline, but intermediate results will be realized much sooner. Mr. Erskine concluded that Tribal Water Resources are looking forward to the results and seeing how the central system ties into the east coast system and what kind of climate variables can be expected.

Tabitha Cale, thanked Mr. Kivett for the presentation and expressed the usefulness of having animated slides that make it easier to visualize specific sea level rise scenarios. Ms. Cale especially appreciated the inclusion of a quote from the National Academy of

Sciences 2008 report: "Climate change should be a reason to accelerate Everglades restoration, not a reason for delays." Ms. Cale noted that the type of adaptation being discussed is expensive and so is Everglades restoration and considering the pace of restoration efforts and the National Academy's desire to speed up restoration activities, stakeholders really need to begin to think about the cost of restoration efforts and the cost of adaptation while realizing that Everglades restoration will become climate adaptation. Ms. Cale stated that there have been documented increases of sea level rise and saltwater intrusion that have put additional pressure on drinking water resources which are already being taxed by not having flows through the Everglades recharging the aquifer. Ms. Cale commented that Everglades restoration needs to be viewed as having additional benefits for adapting and stakeholders should consider whether or not the pace of restoration can be picked up along with an increased investment in the effort which could cut down on some of the future costs of adaption that would have to take place if the system is not being restored. Ms. Cale mentioned that Dr. Steve Davis of the Everglades Foundation and some scientists at Florida International University did a study looking at some of the peak collapse in marsh systems and were able to show that saltwater chemistry that speeds up marsh collapse so as sea levels rise, land could be lost at a faster rate due to the saltwater chemistry in the marsh which is another reason to keep up the freshwater hedge to protect the coastal marsh areas. Ms. Cale noted the USACE's map depicting land loss in South Florida with or without Everglades restoration with two feet of sea level rise.

Albrey Arrington, Loxahatchee River District, said that at times he gets overwhelmed trying to understand the breadth of issues that the District is dealing with and the finite resources that are provided to help resolve them. Mr. Arrington stated that he was not expecting an answer, but was curious to know what the decision tree looks like internally when deciding whether to fix coastal structures, build internal impoundments, restore the Loxahatchee River, or other very expensive District works.

Joe Capra asked who the field's subject matter experts were so that he knew who to contact if he had additional questions related to climate change. Mr. Capra stated that since Everglades restoration does help reduce the impacts of sea level rise and climate change, he does not believe the pace of restoration efforts should slow down. Mr. Capra asked if the USACE requires an analysis of sea level rise in all of their new designs and if so, how does that delay progress of all of the projects currently being planned.

Erin Deady stated that it is not a matter of options as to whether or not this issue had to be dealt with, rather a requirement issued in the last month through a series of federal guidance. Ms. Deady said in December, the White House Council on Environmental Quality (CEQ) issued updated guidance on incorporating greenhouse gas emissions and climate change into alternative analyses within the National Environmental Policy Act (NEPA) and essentially resiliency and the impacts on the human environment whether dealing with ecosystem management or the built environment, vulnerabilities, resilience and alternatives that may have better adaptation response than others now have to be looked at. Ms. Deady continued that this applies to any project that includes a NEPA analysis that receives even \$1 of federal money whether direct or grant funds. Ms. Deady stated that just last week a new executive order amending a 1977 executive order regarding flood plain management expands the definition of flood plain

management both vertically and horizontally in terms of how tax payer investments are factored in and requires all federal agencies to modify their approach to flood plain management. Ms. Deady said that the bottom line is sea level rise and climate change rules are already in existence and a federal agency such as FEMA, USACE or any other federal agency will soon adopt these rules and changes will be felt more prevalently. Ms. Deady stated that Mr. Erskine's questioning of the relationship between interior CERP projects and coastal CERP projects is important far beyond the issue of sea level rise, but has to do with how projects will be designed and operated to deal with particular precipitation events. Ms. Deady continued even though people hate the idea of forward pumping, lack of rainfall may lead to the use of really big forward pumps in terms of water supply. Ms. Deady said that predisposed notions of what is liked and not liked must be done away with in terms of environmental restoration and what competing missions need to be served with those projects and that infrastructure. Ms. Deady said that last month Tom gave a good presentation on the Southern-end projects which had authorizations in the 80s and 90s and now certain aspects have to be tweaked so if design reconfiguration, a new pump or new structure needs to be included and by doing so the NEPA process is triggered climate change and sea rise scenarios will need to be evaluated. Ms. Deady stated it would be a shame to expedite Southern-end projects to protect Mr. Humble, but them not being designed with climate change and sea level rise factors in place would be a disaster and a colossal waste of money. Ms. Deady said that last month WRAC heard from Monroe County on their actions regarding sea level rise which she is involved and in they have unique circumstances, but many local governments are pushing the ball forward so the notion that this issue is being ignored is a false debate and somewhat offensive. Ms. Deady asked several questions including: how are the concepts of sea level rise and climate change being factored into CERP projects over all and the relationships between them; how is required federal guidance being dealt with in terms of certain older authorized projects like Mod Waters, C-111; what about new parts of federal projects that may be being adjusted or updated thereby opening up a NEPA process; and how is this being considered in terms of water supply planning. Ms. Deady continued that she would expect and hope that the next update of the Lower East Coast Water Supply Plan takes a good look at these issues because people are going to have to start looking at where their well-fields are and the yield of those well-fields. Ms. Deady said that she is questioned by a local government or agency at least once a week on whether sea level rise and climate change is an issue that has to be dealt with, how to deal with it, and the comprehensive planning or code of ordinances requirements. Ms. Deady said action must be taken in long-range planning on professionally accepted data which is the best data available and currently being provided by the Southeast Florida Regional Climate Compact that provides information through their website. Ms. Deady said that the District does not need to make a major regulatory shift and include sea level/climate change requirements in the basis of review or Chapter 40E that specifically states that sea level rise must be considered in permitting decisions because impacts of saltwater intrusion, downstream impacts, and internal design and planning standards are already there.

Doug Yoder commented that the work Mr. Kivett has described will have a practical value to a lot of local decision makers who do need to think about the design factors having to do with the life of an asset that requires a large investment. Mr. Yoder said a lot of the work being done by Miami-Dade Utilities in forecasting saltwater intrusion, for

example, turns on how efficiently the drainage system continues to operate which also applies to future land use scenarios. Mr. Yoder stated that Miami Beach has already seen what it takes to coalesce a political position and the current commission was mainly elected on their promise to do something about the drainage problems so a \$400M investment is being committed to try and address it. Mr. Yoder said that when decisions such as these are politically feasible to undertake it indicates that things are happening that people can experience. Mr. Yoder concluded that the exercise should proceed and could possibly be used as a basis for new development standards, base-flood elevation data, and have an assurance that can be relied upon that within a reasonable planning period there will be some stability in how the flood control system works.

Lieutenant Colonel Greco responded to both Mr. Capra and Ms. Deady stating that one of the best examples to look at regarding how sea level rise and climate change is handled in the planning stage is the Central Everglades Planning Process (CEPP) which will give everyone an idea of how future projects will consider the issue.

Public Comment

Caroline McLaughlin, National Parks Conservation Association (NPCA), thanked Mr. Kivett for the presentation especially the animation. She stated that this issue is extremely important especially since the region is one of the most vulnerable to the impacts of climate change in the world. Ms. McLaughlin said bringing these discussions into decision making is important to projects that are being considered now and having a range of options related to the issue is important. Ms. McLaughlin said when considering potentially devastating impacts to South Florida communities, Everglades restoration needs to move forward as an important factor as an adaptation measure and increasing the resiliency of the infrastructure of the communities and the environment, particularly the completion of the Biscayne Bay Coastal Wetlands project which would provide huge benefits in terms of preventing saltwater intrusion and increasing the resiliency of coastal habitats. Ms. McLaughlin said she was glad that this discussion is being held and is looking forward to more information on the topic in the future.

Laura Reynolds, Tropical Audubon Society Representative, said that Dade County has been dubbed ground zero next to Manhattan as far as having issues related to sea level rise. Ms. Reynolds stated that the Board of County Commissioners passed seven resolutions last month adopting measures to deal with rising sea levels, including not developing on low lying areas. Ms. Reynolds said that the county's "Hold the Line" campaign tries to keep developers from encroaching on the Everglades as all of the green space that surrounds the county is land that is slowly being purchased and put in public ownership which is a big deal in the Southern end of the system. Ms. Reynolds continued, one of the goals of the District, Dade County and the four county Compact should be to look at those pieces of land that may be needed and can be used for restoration or any that can help with resiliency should be part of the conversation. Ms. Reynolds said buying up that land holding more water in those areas can protect the public from sea level rise. Ms. Reynolds agreed that accelerating projects that occupy coastal areas such as the C-111 East Spreader Canal and Biscayne Bay Coastal Wetlands Phase 2 which are in a critical low lying area where many environmentalists think there has been a gross mismanagement of water that needs to be re-looked at

and the practices in that area such as the ag draw down because it is known that more water needs to be held in that area. Ms. Reynolds said that considering changing the operations in C-111 is not what should be taking place right now because of flooding instead the focus should be on purchasing those properties, hold water in the area to protect wellfields, and not eliminate environmental benefits. Ms. Reynolds said she was happy that this presentation was brought to WRAC and is supportive. Ms. Reynolds concluded that there should be a line item in the District's budget for sea level rise similar to the line item that is in the budget for hurricanes because there will be a jump in sea level rise not a gradual rise that would allow lots of time to prepare.

Bob Ulevich stated that it is important to realize that Miami South Dade is a critical zone but he does not want to become myopically focused on that because of the interconnectivity of the entire system. Mr. Ulevich said that people in the regions such as Kissimmee or Martin county may not be as impacted as people in the Southern end of the system but it important that all understand that the system works together and creates a domino effect, so while the South end is looking at solutions, the other areas of the system should not be neglected.

5. L-31N Seepage Barrier Phase I - Terrie Bates, Director, Water Resources Division, SFWMD

WRAC Member Comment

Joan Lawrence thanked Ms. Bates for the presentation, the Lake Belt Mitigation Committee (LBMC), the Miami-Dade Limestone Products Association and consultants Tom MacVicar and Jeff Rosenberg for persevering with the project which is a priority project for Everglades National Park and the DOI. Ms. Lawrence said she was looking forward to the upcoming meeting of the LBMC where this issue will be brought up for consideration of the next three miles of construction.

Mike Collins said the Florida Bay Initiative funded a study comprised of some of the best hydrogeologists and hydrologists in South Florida twenty years ago to come up with a solution and this is what they came up with. Mr. Collins noted that seeing the solution finally implemented and working is very reassuring that a solution may be found regarding water in the Park and people on its boundary. Mr. Collins strongly urged that this idea stay in the mix as a solution or an alternative to the replacement of the two temporary pumps in the 332s which are problematic in terms of a sustainable solution. Mr. Collins said this is a passive solution that can be engineered to maintain historic seepage rates in the east which provides some water to the east and flood protection. Mr. Collins continued that this type of solution can deal with the wellfields and eliminate the conflicts in South Dade where farmers are being flooded and too little water is being delivered to Florida Bay. Mr. Collins said the idea has been opposed by varying interests for over twenty years but suggests this would be a good time to look objectively at solutions that would actually solve the problem instead of solutions that suit people's specific philosophies.

Newton Cook commented that it is always good to see positive work done and shovels in the ground. Mr. Cook stated that this creates about 40,000 acres of land that could

be opened to the public, particularly in the C-139, even though some areas such as Rocky Glade are already accessible by the public. Mr. Cook noted that these areas are really good for recreation and hopefully as these types of projects are developed, public use and points of access are considered throughout the entire process.

James Erskine agreed with Mr. Collins' comments regarding finding passive solutions opposed to pumping as the Tribes have always had concerns about pumping at the S356 pumpstation considering its location in proximity to its resort structures. Mr. Erskine asked what is the decision tree and process for the LBMC in deciding whether or not the project moves forward. Mr. Erskine commented that he liked the synergy between science and industry that has brought this project to the table. Ms. Bates responded that the LBMC has already considered the next three miles of the project and one of the issues being worked through is the fund is to provide mitigation for the Lake Belt industry in a comprehensive manner so together with federal government agencies, mitigation value is being determined from the next three miles of slurry wall that will be attributed. Ms. Bates continued that once the value was determined, it will be brought back to the LBMC who would ultimately vote to approve the next phase. Ms. Bates stated that the LBMC already has details of the budget, cash flow projections, but needs to make sure regulatory bases are covered for both federal and state agencies. Ms. Bates was optimistic that action would be taken within the next couple of months. Chair Moran stated that he understood the project is meant to help hold water in the Park and asked once the entire project is complete, is there an estimate on how much water would be held back each year. Ms. Bates responded that with the two mile section 100 cfs has been measured and that figure is expected along the remainder of the project, but asked Tom MacVicar to respond to Mr. Moran's specific question. Tom MacVicar responded that the computer modeling estimates double the measurement of the two mile increment as most of the seepage occurs in the top, more is being intercepted than the pro rata share in the three miles. Mr. MacVicar continued, that a lot of field data still needs to be analyzed; however, the five mile project would accomplish 95% of the mission established by the USACE for the original seepage barrier project.

Adam Gelber, Atkins North America, said this is one project that brings a lot of hope for him for Florida Bay and keeping a lot of the water in the Park. Mr. Gelber expressed concern that once the functional values that were being mitigated for are assessed and completed, the barrier stops and the mitigation ends there will be a mechanism to continue to work to keep water in the Park.

Public Comment

Laura Reynolds said that Ms. Bates mentioned extensive monitoring as part of the two mile trench construction and asked if the monitoring program considered impacts to Biscayne Bay from lack of groundwater flow to the east. Ms. Bates stated the monitoring program is focused on the seepage across the barrier and there is no downstream Biscayne Bay National Park component. Ms. Reynolds expressed concerns that decisions being made are based on consideration of sea level rise and its coastal impacts. Ms. Reynolds stated that it is a great idea to keep more water in the Park but wanted to be sure that decisions are also based on other considerations such as sea level rise and funds are used accordingly. Ms. Reynolds stated that the LBMC has only one member from Miami-Dade County and the impacts of the subject rock

mining is taking place in Dade County and it is her assessment is that much of the mitigation has been moved to Hendry County when little improvement has been seen in Dade County. Ms. Reynolds asked how Senate Bill 510 and House Bill 359 might impact the Lake Belt fund as it appears the amount of \$0.45 per ton is being moved to \$0.05 per ton and changing where the funds go. Ms. Reynolds said that coastal areas and ground water flow to the east need to be considered as the project moves forward.

Caroline McLaughlin thanked the LBMC for their work on the subject project and said the NPCA is glad to see this project move forward as it is essentially a CERP project that needs to be completed in order to keep more water in the Park and flowing down to Florida Bay. Ms. McLaughlin looks forward to seeing the next phase of construction and hearing more results.

Tom MacVicar, Miami-Dade Limestone Products Association (MDLPA), said mining may be sort of a mystery to this group as it is not regulated by the Water Management District and is a coalition of rock mining companies in the Lake Belt which produces about half of the construction aggregate material used in Florida. Mr. MacVicar said it supplies Orlando, Cape Canaveral and all the way up the east coast to Jacksonville and the lower east coast. Mr. MacVicar addressed Ms. Reynolds concerns about the flow to Biscayne Bay by stating the model looked at all of that and the seepage being intercepted by the barrier must be channeled through the C-111 system to the South and does not affect the canal stages in L-31. Mr. MacVicar continued that the barrier gives the District a lot more flexibility in terms of what to do with the water once it gets into L-31N; it can be distributed to Biscayne Bay, Florida Bay, Taylor Slough or the Rocky Glades buffers. Mr. MacVicar stated the MDLPA has enjoyed its association with the committee and thinks the process has worked well and might serve as a good model for other projects. Mr. MacVicar said that with the process did not streamline permitting but did add discipline to the mitigation side of the permits which is the biggest component of permits in the South region. Mr. MacVicar continued, before the plan was adopted there were about twenty seven permits for rock mining inside the Lake Belt and each one of them contained a different approach to mitigation with different requirements which became impossible to keep straight and agencies had no guidance as to how to proceed; however, the Lake Belt process has resolved most of that problem but did not provide any short-cuts on getting projects permitted.

6. Leased and Surplus Lands Update – Bernard J. Ward, Director, Real Estate Division, SFWMD

Kevin Powers, WRAC Vice-Chairman, asked WRAC members to roll up their sleeves and get ready to work on this as the essence of WRAC is to tease out policy discussions and pitfalls that are headed to the Governing Board. Mr. Powers announced that on Wednesday, February 11, 2015 there would be a Project and Lands Committee meeting for the first time in two years to discuss this specific issue followed by a Governing Board meeting to undertake policy action. Mr. Powers stated that the District possesses a whole portfolio of lands that have no use and believes that something needs to be done with those lands but encouraged WRAC members to weigh in on what that should be. Mr. Powers challenged WRAC members to think about the backdrop of Amendment 1 and how it may play into it, even though it is

unknown how the legislature will enact the legislation. Mr. Powers said that he understands both sides of the issue – stakeholders wanting to use Amendment 1 funds to acquire more land and have that land kept in public ownership and the reality that these parcels cost a lot of money to maintain and may not have a use within the agency but could have a position elsewhere. Mr. Powers expressed his desire to balance the two interests and welcomes WRAC input as the Governing Board prepares to deliberate. Mr. Powers stated that he is mindful that this is an issue where everyone may not receive the outcome they want, but it should be understood that within the scope of the agency, the core mission must be the primary focus, and the lands being discussed for surplus represent only a small portion of the overall holdings of the agency but will represent a lot of pain and punishment in the eyes of the public no matter what, so he is interested in having all information in the open so that he is able to make a well-informed decision.

WRAC Member Comment

Jason Liechty stated that Broward County was disappointed in the noticing of some parcels along Griffin Road that were up for surplus. Mr. Liechty that throughout the District's surplus lands review process the County participated in the reviews, submitted comments, attended public meetings and requested to be placed on email distribution lists when lands in Broward were being considered for surplus. Mr. Liechty stated that the first the County heard of a land sale was through certified mail sent to the County Administrator that arrived between the Christmas and New Year holidays and only gave a thirty-day time frame for expressing interest or move to purchase the property. Mr. Liechty contended that this is not enough notice in light of many local government commission's monthly meeting schedules and does not allow enough time for commissions to adequately review and discuss the possibility of a purchase and then undergo its approval process. Mr. Liechty asked if there was a way for staff to notify counties that an official notice is being sent or provide some means of notifying counties earlier so that they can have adequate time to move these items through their local processes to put them in the best position to make an offer.

Kim Lawrence agreed with Mr. Liechty regarding the timely noticing of lands to local governments that are up for surplus and added that a list of properties should be sent to local governments and municipalities at least a year in advance to they have an opportunity to budget, plan to purchase, lease or partner with the District so these lands can be used for additional storage or flood protection which are components of the District's core mission as well as beneficial to local communities.

Newton Cook thanked District staff for informing and cooperating with the recreation groups throughout the surplus lands process that began several years ago, specifically for making a presentation at a WRAC Recreational Issues Workshop regarding leased and surplus lands. Mr. Cook said that open lines of communication give recreationists a chance to express their concerns and have them addressed before these issues become a larger issue. Mr. Cook said there is a lot of trust between the recreation community and District staff.

Jim Reynolds, Reynold's Engineering and Consulting, asked if state policy dictates how properties are exposed in the best interest of the District and said there should be a

mechanism in place to surplus lands to local governments or provide them special consideration.

Mike Collins said there appears to be consideration for making it easier to form partnerships between the Water Management Districts and local governments or private entities in the legislature's first Amendment 1 proposal specifically for water projects. Mr. Collins continued that there has been a feeling that there is no statutory prohibition on it but getting one done has always been difficult. Mr. Collins speculated that there was movement to clarify, provide guidance, and make it easier for the District to accept a proposal from a local government that may involve District land. Mr. Collins said this action may be driven by alternative water supply development which has been chronically underfunded.

Joe Capra said that he believes that getting rid of unused lands is important to do as quickly as possible so that funds can then be used to purchase lands that are needed to fulfill the District's mission or projects that need funding. Mr. Capra said that people, such as Commissioner Turner, have stated that they do not want an increase in public lands although there may be some communities that can afford an increase in public lands located in their areas and those counties and municipalities should have every avenue and ability to acquire the land. Mr. Capra said that Martin County has been able to purchase surplus land from the District and put it to use for stormwater retrofit which benefits the community as well as the District. Mr. Capra commented that the needs in every community will be different and asked for clarification on the appraised values listed in the presentation. Mr. Ward explained that appraisals had been completed on the first twenty six parcels, but have not been completed on the entire list of parcels identified for surplus.

Karson Turner commended the District on their review of the leased and surplus lands program. The Commissioner said that as an economic driver they are huge to the eleven counties they are operating in, specifically Hendry, Glades and Okeechobee Counties. Commissioner Turner pointed out the Berry Groves property that is 11,000 acres of active grove that once employed many people and the potential of the project is monumental as it relates to the Caloosahatchee estuary; however, the grove is diseased and sitting idle with the potential to affect millions of dollars of the surrounding citrus industry as it relates to greening. Mr. Turner said he knows District staff has taken this type of knowledge in consideration and is excited about the process. Commissioner Turner discussed the District's land management web page which contains information on lessees which can be accessed by typing in a name which is an excellent service in the name of transparency.

Public Comments

Laura Reynolds said she agreed with Mr. Power's comments that municipalities and local governments should be considered when discussing surplus of land and the suggestion that Amendment 1 funds are considered when thinking about land. Ms. Reynolds requested a list of the fourteen parcels of land discussed in Mr. Ward's presentation. Mr. Ward said he would get her a list. Ms. Reynolds stated because a property has not been used, and there are no current plans for building projects on it in the near term, these lands still offer benefits, such as the Bird Drive Basin, and provides

a service that goes with the District's core mission. Ms. Reynolds asked WRAC members to keep in mind that because a property may appear to be of no use it can still hold water, recharge the aquifer and act as a buffer for the Everglades. Ms. Reynolds recommended extending the amount of time from forty five days to double the amount to allow time for municipalities or local governments to align the land offering with their commission meetings, arrange funding or apply for grants. Ms. Reynolds concluded by telling WRAC members to not buy high and sell low.

7. Staff Reports

Tom Teets talked to members about the status of the Ten Mile Creek project including the filing of Congressional bills in both federal House and Senate to de-authorize the project from Corps ownership so that the property can be transferred to the District. Tom also discussed the Integrated Delivery Schedule in light of two recent workshops regarding the schedule.

Jeff Kivett followed up last month's System Constraints to Moving Water South presentation by sharing further details outlining each constraint in a Power Point handout which was also posted on the District's website.

8. General Public Comment

Martha Musgrove, Florida Wildlife Federation, stated that is appropriate for District executive staff to meet with South Dade farmers to get a better understanding of the complexities of the problems. Ms. Musgrove referred to a presentation given to WRAC by Tom MacVicar in January by stating that it was a very accurate description of the history of the project. Ms. Musgrove continued that subsequently meeting attendees updated members on the environmental position of the Everglades Coalition comprised of fifty seven organizations that concur that the overarching goal of CERP is restoration of the Everglades. Ms. Musgrove said CERP was a plan that had three legs including consideration of water supply, drainage and flood control. Ms. Musgrove contended that there has to be some meeting of the minds and a way to resolve long-standing disputes. Ms. Musgrove expressed disappointment that the last WRAC meeting was held on the same day the Everglades Coalition began its conference so many of the people possessing historical knowledge were unable to be present to share their points of view. Ms. Musgrove provided historical background on Karston's conceived slurry wall relative to the L31N project. Ms. Musgrove concluded that there needs to be continued public dialogue on the subject and workshops or seminars in South Dade that would get the necessary parties involved including Miami-Dade utilities.

Final WRAC Comment

Bubba Wade, US Sugar Corporation, commended Mr. Kivett for the presentation he provided last month on system constraints as it was the first time that the reason behind the South Dade issue became clear along with clarifying the many constraints associated along the entire system. Mr. Wade continued that the importance of last month's discussion regarding South Dade flooding and the possible formation of a

technical subcommittee was that the farmers feel that their voices were being heard and if executive staff is taking the role of analyzing the situation and coming up with solutions it is important that they involve key people that are closely linked to the problem. Mr. Wade suggested that individuals be identified by Mr. Humble and work with staff to present jointly if future presentations are to be made to the Governing Board. Mr. Wade said that in terms of sea level rise discussions he never knows which side of the argument is right and what is missing is a sensitivity analysis that lists both sides of the issue – for instance, if Mr. Cook is right and there will be little increase in the rise of sea levels, ten inches in sixty years, what does that mean, does it mean a cost of \$2B to fix it and what needs to be done. Mr. Wade continued likewise, if there will be a drastic change such as two to four feet in the next sixty years, will it cost somewhere in the trillions of dollar range and Florida become like Amsterdam and have to re-plumb or would people have to relocate, what exactly would this mean. Mr. Wade said if the latter argument is true, people would have to move and sea level rise would be way too costly to address. Mr. Wade said that when discussing moving forward with Everglades restoration to address sea level rise, Amendment 1 legislation is infusing roughly \$500M per year in doc stamp taxes into environmental initiatives and there is already \$70B worth of requests coming in from all over the state for the money. Mr. Wade said of this the District has about \$5B left for restoration with at least twenty other projects that have costs that are yet to be determined. Mr. Wade said that the reality is there is not enough money and when you add in sea level rise, it does no good to continue discussing it without adding the element of cost and what the real potential impacts of the matter are in actuality such as here is what the problem will look like in the future, whether it be less houses, more water storage and still having flooding issues. Mr. Wade concluded that stakeholders need to be realistic when addressing the true needs of sea level rise.

James Erskine added to Mr. Wade's comments regarding the true meaning of sea level rise and the effects of climate change. Mr. Erskine suggested that to different people, it means different things. Mr. Erskine said in Miami many people that own condos or homes have the option to relocate to higher ground out of state; however the Miccosukee Indian Tribe lives on federal trust lands and cannot pull up those lands and move nor do they want or choose to. Mr. Erskine said the people are tied to those lands as their heritage, their culture in a way that Americans may not understand.

Shelley Vana said elected officials and policy makers have a responsibility to the constituency to protect their best interest. The Mayor said if counties and municipalities fail to act and insurance companies decide that coastal Floridians are uninsurable due to the possibility of sea level rise, homeowners will address the issue with these officials first, therefore, these types of issues must be vetted and planned.

Jason Liechty pointed out that one of the main factors ensuring that insurance companies continue to offer coverage is the ongoing discussions elected officials and stakeholders are having regarding dealing with sea level rise. Mr. Liechty contended insurers would abandon Florida homeowners much sooner if the situation was being ignored and taking some sort of action may maintain insurability.

Mike Collins said that at last month's Governing Board meeting, Monroe County staff put together a presentation containing a model of what would happen to property and

roads in the lower Keys over the next sixty years in the event of sea level rise and at what levels people would start losing highways and homes. Mr. Collins continued there is existing technology that would allow interested individuals to locate this type of information. Mr. Collins concluded that as far as solutions are concerned, he is not really sure if there were a whole lot that can be done as people may not have enough control over the situation to devise any solutions.

Newton Cook responded he did not say sea level rise does not exist or there is no global warming even though there has been no warming in twenty years, the globe is warming and the seas are rising. Mr. Cook said he simply stated the rate of sea level rise has been approximately an inch every twenty years over the last one hundred years and is not rational to think that next year sea level rise be twenty three times that amount while seas have been rising at such a low level in a very industrialized time of the earth having 2B to 3B people breathing out carbon dioxide. Mr. Cook said it is irrational to think that sea level rise will do the “old hockey stick” which has been disproven twice since the 1990’s.

9. Adjourn

The Chairman announced the next WRAC meeting for March 5, 2015 with a WRAC Recreation Issues Workshop scheduled for March 16, 2015.